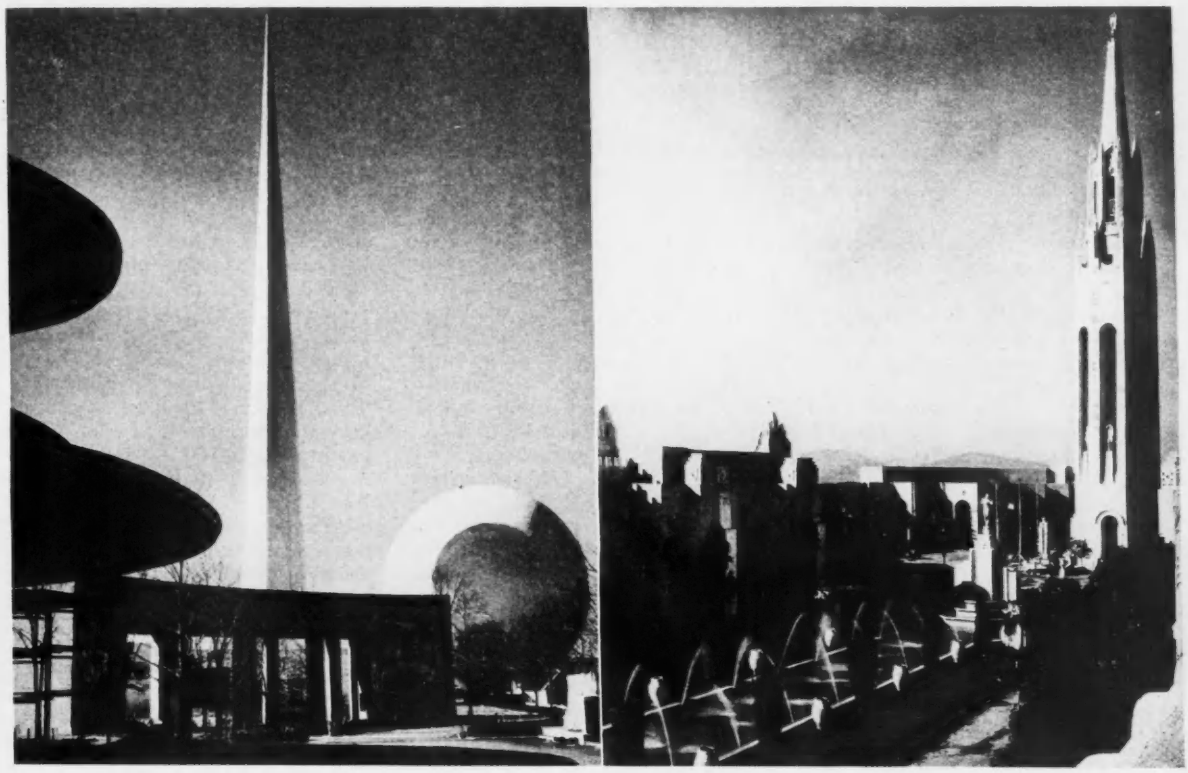
Volunteer Firemen

JUNE 1939

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston, Massachusetts



FIREMEN, FIRES AND FIRE PROTECTION AT TWO WORLD FAIRS

FIREMEN, and particularly volunteer firemen, are to have an important part in the celebrations this summer which will have their focal points in the two great fairs at New York and San Francisco.

A four-day program designated "Volunteer Firemen's Days" will be featured at the New York Fair, August 15 to 18. The celebration of these days will start with the 67th Convention of the Firemen's Association of the State of New York. This meeting will be followed on succeeding days by a National Firemanic Tournament including contests and a parade. The Pacific Coast Association of Fire Chiefs and the International Association of Fire Chiefs will hold their conventions in San Francisco in September. Fire chiefs from all over the United States and Canada will attend. Chief Charles F. Brennan of San Francisco will be their host. Not the least of the attractions by which he got them there was the prospect of attending the Golden Gate International Exposition.

A large number of awards have been prepared for fire departments appearing in the parade and tournament at the New York Fair. One will be for the company in the parade which comes the longest distance with 15 or more men. Parade prizes are to be awarded also for the best firemen's drum corps, and the best firemen's band, the best firemen's drill team, and the best showing by a fire department ladies' auxiliary. The parade will feature old types of apparatus. A special prize will go to the oldest piece in the parade line, and another to the best appearing hand-drawn parade apparatus. In all, there are 22 parade prizes and an opportunity for volunteer units to take awards for many phases of performance in which their department or company may excel.

The Firemen's Association of the State of New York has extended an invitation to all fire departments in the United States and Canada to take part in its celebration. Those who wish to enter their department or company may get an entry blank from the Headquarters' Convention Committee of the Firemen's Association of the State of New York, 136-61 Roosevelt Avenue, Flushing, New York. John J. McConnell, president of the New York

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Treasure Island, in San Francisco Bay, site of the Golden Gate International Exposition. The picture was taken from a neighboring island over which passes the San Francisco-Oakland Bay Bridge.

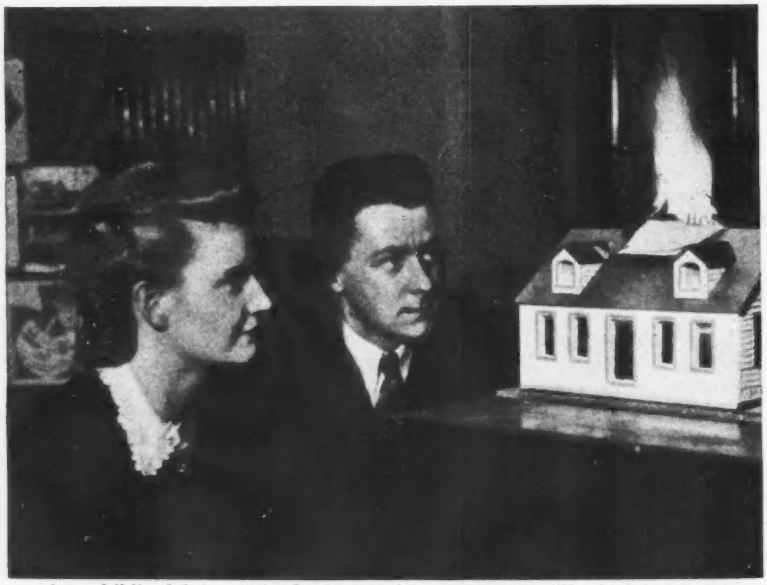
State association, is honorary chairman of the entire program of firemen's events at the New York Fair.

In addition to the parade contests, fire departments and companies attending can demonstrate their ability in numerous practical evolutions in the tournament events of which there are eight. They comprise: (1) a three-man ladder climbing contest; (2) a ladder-raising contest for motor hook and ladder companies; (3) putting a hose line in operation from a hydrant, a contest limited to companies with hose wagons made from rebuilt pleasure cars; (4) the same evolution for companies with standard factory-built apparatus; (5) a pumping contest for pumpers with 4-inch or larger suctions; (6) a similar competition for pumpers with suctions less than 4 inches in size; (7) a contest consisting of laying a 150-foot line of hose from a hydrant, starting with three 50-foot lengths of hose in rolls; and (8) an evolution involving the insertion of a siamese connection in a hose line already laid, and running a second 100-foot line of hose from the siamese connection. These will be recognized as standard evolutions which are popular at firemen's conventions. The contests will be judged on the basis of speed and the observance of a definite set of rules limiting the details of each evolution. While speed is never stressed in fire evolutions during ordinary drill work, these are all simple operations and the element of speed is expected to make the contests of greater interest to spectators.

As its name, "The World of Tomorrow," indicates, the New York Fair attempts to present a glimpse of the future. Nowhere else is this undertaking better illustrated than in the ultra-modern conceptions of the architects in the design of the buildings. This is likewise true of the "Pageant of the Pacific." The construction of the unusual building types has, in both cases, been simplified through the use of wood planking on light steel framework. To permit this, both fairs have been exempted from the building laws of their respective cities. The speed with which such construction will burn if ignited is of some concern to the fire departments. The interior rooms are very large in most buildings and there are many concealed spaces which would make fire difficult to detect and extinguish. The elaborate decorations which have been used will tend to complicate this problem.

Another feature of the unique construction which may obstruct fire fighting operation is the lack of windows in most of the exposition halls. Firemen, deprived of their usual means of emergency entrance, will have only the ground floor doors through which to operate their equipment. There is, therefore, a distinct possibility of fires getting out of control and destroying the buildings of their origin.

Firemen feel, however, that a sweeping conflagration at the New York World's Fair should not happen. Most exterior walls of buildings are finished with stucco on either a plaster base or wire lath. The exposure protection afforded by such finish, plus the spacing of most buildings in blocks varying from 200 feet in width to a minimum of 100 feet, should enable the firemen to confine



An exhibit of interest to firemen and home owners alike is this miniature house in the fire prevention section of the "Laboratory for Living," the Ætna Life Affiliated Companies' display at the New York World's Fair. The demonstration is intended to show fire causes. Visitors are taken on a tour of a typical city in miniature, in which homes and factories will be observed as they go up in smoke or are razed by fire and explosion.

An aerial view of the New York World's Fair taken shortly before opening day, April 30. Note the wide boulevard that divides the grounds into two distinct fire areas.

fires to the buildings of their origin. Fire alarm and extinguishing equipments which have been provided will enable the department to go to work on fires which may occur almost as soon as they are discovered.

Fire prevention authorities at each fair will be particularly careful to watch for accumulations of flammable rubbish, fire hazard No. 1 of temporary expositions of this type. Because of the high standard of wiring which has been employed at each fair, firemen anticipate little trouble from electrical hazards.

Water supplies for the New York World's Fair are provided by a 48-inch main and a 20-inch main connected to the regular city water supply. Hydrants on Treasure Island, site of the Golden Gate International Exposition, are filled by a 9½-inch pipe laid across the San Francisco-Oakland Bay Bridge. Water supplies have been extended to the parking areas where many thousand cars may be subject to a single fire.

Some important buildings are protected by automatic sprinklers, but the majority are not. Automatic fire alarm systems are installed in most of the large ones, and there are street boxes and interior boxes of the manually operated type. First aid fire appliances have been provided at strategic points in most of the buildings. Guards, special policemen, guides, and other employees are trained to transmit alarms and clear roadways for the fire department.

In San Francisco the exposition grounds, located on an island, are protected by a fire boat and apparatus from two engine houses. The municipal department has placed 75 fire department members in charge of two 1,000-gallon pumpers, two 85-foot aerials, one chemical truck and one fire boat tender at the fair. The mainland apparatus will also answer alarms from the exposition grounds. The first call brings two additional ladders and three pumpers across the bridge, and following alarms are answered in proportion. All buildings on the fair grounds are within three-quarters of a mile from an engine and ladder. The area protected is divided between the island fire stations. All apparatus in a given station responds in its district and all apparatus in the other station responds if a second call comes in. Searchlight apparatus from the mainland responds automatically if the alarm comes in after dark.

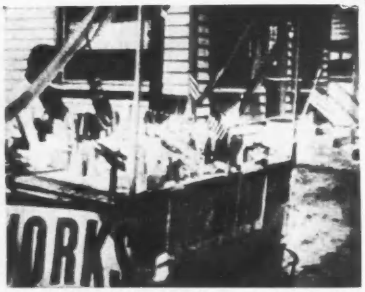
Fire prevention work at the Golden Gate Exposition is under the supervision of a battalion chief. His is the job of seeing that all fire prevention ordinances are enforced and hazardous conditions discovered and remedied.

In New York, the city forces assigned two engine companies as soon as there was anything to burn. The full equipment now on the Flushing Meadows, 1216 acre site of the fair, consists of two 1000-gallon pumpers and three 500-gallon pumpers with a personnel of three battalion chiefs, two captains, 15 lieutenants, and 98 privates. There are three engine houses located on the fair grounds and a fourth nearby.

In addition to this fire department in New York, there is a fire prevention department under the command of Thomas F. Dougherty, retired assistant chief of the New York Fire Department. The members of the fire prevention department are assigned to make inspections of all buildings, to regulate their hazards, and to become familiar with the structural details. Unsatisfactory conditions are reported to the chief of this department, and corrections are usually secured promptly. Exhibitors have too much at stake to take his warnings lightly.

Los Angeles Firemen Film Victims of Fireworks

A Contribution To The National "Safe Fourth" Campaign



Los Angeles' experience is typical of cities attempting fireworks control by local ordinance. Outside the city limits, within easy reach of children on bicycles or on foot and only a pint of gasoline distant for the motorist, fireworks stands line the highway.

On July 5, Captain O. J. Emory, Director of Public Relations, Los Angeles Fire Department, arranged to have a motion picture made in the Los Angeles Receiving Hospitals. Pictures on these pages are directly from the film.

FIREWORKS deaths and injuries increased in 1938. The American Medical Association, continuing its program of collecting from hospitals all available data on fireworks accidents, reported 25 deaths for 1938 as against 20 for which fireworks were responsible in 1937, and 7,933 serious injuries against 7,205 the preceding year.

The record of 1938 is calculated to add momentum to the campaign for adoption by states of the N. F. P. A. Model State Fireworks Law. The law does not outlaw fireworks for it sanctions organized public displays, but it does propose to keep them out of the hands of children and irresponsible persons. No loss of life was reported in 1938 from states regulating fireworks through its provisions, and injuries in these states were at a minimum. Iowa, in 1937 the victim of 76 reported accidents and untold others unreported, reduced its calamity list last year to 6 through the adoption of the law. New Jersey, once the state with the saddest record, reported less than a hundred accidents for the second straight year since adopting similar legislation,—a remarkable record. Next door Pennsylvania, having no effective legislation, watched eight people die and 1702 suffer disfigurement! Number two black spot was New York—4 deaths, 1630 injuries.

Cut and burned fingers are familiar fireworks injuries. They are ugly and painful.

Meanwhile the campaign for universal adoption of the Model Law is growing more intense. Firemen's associations, the Society for the Prevention of Blindness, and other public spirited organizations succeeded during the past year in having the bill brought for the first time before the legislature of sixteen states. Pennsylvania, Utah, Indiana and West Virginia have newly adopted it. In other states action is pending with varying chances of success. In some the bill has been defeated for the present session but will undoubtedly be forced back into consideration by aroused public opinion.

In California the law is receiving particularly strong support. The picture story on these pages was taken from the sound film "Then Came July 5" developed by the public relations bureau of the Los Angeles Fire Department under the direction of Captain O. J. Emory. Captain Emory is Chairman of the Fire Prevention Committee of the U. S. Junior Chamber of Commerce. The film was produced by Panorama Pictures, 7936 Santa Monica Boulevard, Hollywood, California, and copies may be purchased from the producer in either 35 or 16 mm. size. The N. F. P. A. Committee on Visual Education has one 16 mm. copy. Fire departments wishing to arrange single showings should write to R. E. Vernor, 222 West Adams Street, Chicago. Mem-

This boy "holds tight" as the doctor disinfects, cleans and bandages a burned hand. The doctor will save him from lock-jaw, but the hand will be scarred for life.

bers on the Pacific Coast will probably find they can obtain the film directly through Captain Emory.

The unsuccessful campaigns for the law this year were often closely contested. In Maryland the bill passed the house easily. It was debated at length in the senate, finally reaching a vote on the last day of the assembly. Public sentiment was then razor sharp for its enactment, but there was opposition among the politicians. Proponents of the bill sat in breathless suspense as the vote reached 14 to 14 with but one more name to call. The final senator arose and is reported to have said that it was "with the greatest of pleasure"

Bandage removed, this boy still looks into blackness. He will be allowed to live out his life only through the charity of society.

that he cast his vote against the bill. Unfortunate was he, for he could not have realized how great would be the hue and cry following his action. Maryland papers attacked him personally in their editorial columns. The Baltimore *Evening Sun* in particular had words like these to say.

"He should preside over some such institution as the William S. Baer School for Crippled Children (a Baltimore Institution). There perhaps he might observe children maimed by fireworks within the next year or two; and he could fairly claim that by his vote in the legislature he helped put them

Half a hundred lads like this one walk through unseen gates to learn a new and black life each year. A small part of the torture of the firecracker.

A firecracker has exploded in this boy's face. His eyes filled with small burned particles of powder have been treated and bandaged. But the doctor who cuts the bandage knows the lad will never see again.

there. Perhaps he would realize that 'with the greatest of pleasure'!"

Strong words from Baltimore!

The campaigns in other states were not without heat. Clever opposition was often encountered. In Idaho, after the law had been passed by the house with a large majority and was about to

Fireworks are beautiful and exciting as well as dangerous. Most of the danger can be removed without sacrifice of thrill if public displays, conducted by experts, are sanctioned. The N.F.P.A. Model State Fireworks Law provides for this.

be voted on by the senate, a good speaker with tears in his eyes pointed to a gallery strangely full of school children and asked the senators not to deprive these innocent little children of "the pleasure we enjoyed when we were young."

This year fire departments will have their usual big job of keeping the Independence Day list of accidents as low as possible. In the eight states which have adequate fireworks legislation their enforcement of the law will tend to control the hazard. Promotion of public displays by the department very often makes enforcement appreciably easier.

States which do not have restrictions comparable to those recommended by the N. F. P. A. often have laws or regulations which prohibit some dangerous types of fireworks. In these, and in cities prohibiting fireworks by local ordinance, firemen can materially aid the cause of safety by enforcing what laws they have. In locations where sale is allowed, many departments will enforce safety measures for every fireworks stand. No stand, for example, will be allowed in the front of a store, where it conceivably might cut off exit in case of fire. They will require fire extinguishers or water pails to be kept nearby ready for instant use. Firemen also commonly have authority to enforce "No Smoking" rules.

What private family or child can afford to shoot fireworks like this one? Public displays are more beautiful as well as safer.

First College Class IN FIREMANSHIP

Eleven of the thirteen members of the first college class in firemanship at Oklahoma A. & M. College. Left to right, back row: Willard Acree, Woodrow Wilson, Vance Smith, Robert Courtney, Gillette Sanders, Dan Bonner; front row: Don Seelig, Johnnie Warren, Franklin Gates, Lynn Laxson, Clay Albright. The two members not in the picture are Hollis Godfrey and Marion Russell.

TO Stillwater, Oklahoma, last year went the first group of boys ever to go to college to study firemanship. As a division in its new School of Technical Training, the Engineering School at Oklahoma Agricultural and Mechanical College offered firemanship training to high school graduates who satisfied entrance requirements.

In describing the curriculum the Oklahoma A. & M. catalogue says, "Firemanship has come to be a highly technical job due to the development of commodities involving flammable and explosive materials, modern building construction and occupancy, and the scientific means of fighting fires. One who enters this service must be a technician and yet be skilled in the various phases of fire protection and prevention. It being an emergency job, he must be able to think quickly and accurately. To do this his mind must be trained as well as his hands and he must have a store of information for immediate use at all times."

The School of Technical Training, of which the firemanship course is a part, is a two year course. While it does not lead to a degree, its two years of work will be accepted by the college toward the four required for a degree.

The subjects covered by the course take advantage of the general mechanical training available through other divisions of the School of Technical Training with the added special study subjects in firemanship. The course has the active cooperation of J. Ray Pence, Chief of the Stillwater Fire Department. The men serve in shifts as a special company of his department, responding to fires during off-class hours.

The College Fire Service Training Station, erected by city, state and federal governments at a cost of about $87,000, will be finished this summer, and will house the students, provide facilities for the special drill and lecture work required by fire service training, and serve as a Stillwater Fire Department Sub-station.

FIREMANSHIP TRAINING

First Year

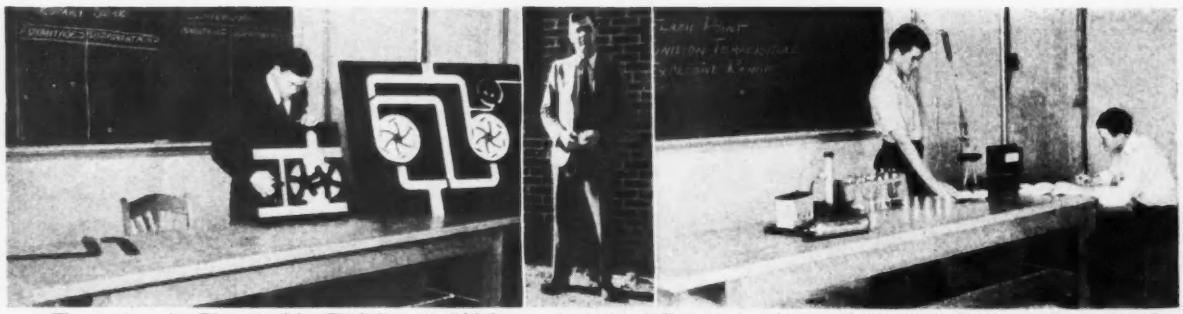
First Semester	Hours Class	Lab.	Credit
Freshman English	3	0	3
Industrial Algebra	3	0	3
General Chemistry	3	3	4
Engineering Drawing	0	6	2
Psychology and Life	3	0	3
Fire Fighting Practices	0	3	1
Fire Hazards and Fire Causes	1	3	2
Engineering Lectures	1	0	0
Military Science	2	1	1
	16	16	19

Second Semester	Hours Class	Lab.	Credit
English Elective	3	0	3
General Chemistry	3	3	4
Trigonometry for Technicians	2	0	2
Shop Woodwork	0	3	1
Forging and Heat Treatment of Metals	0	3	1
First Aid	2	0	2
Combustion Engines	2	2	2
Fire Protection	1	3	2
Fire Fighting Practices	0	3	1
Engineering Lectures	1	0	0
Military Science	2	1	1
	16	18	19

Second Year

First Semester			
Chemistry of Engineering Materials	2	3	3
Acetylene and Electric Welding	1	3	2
Red Cross Life Saving	0	3	1
Mechanics and Heat	3	3	4
Essentials of Electricity	2	3	3
Fire Prevention	1	3	2
Fire Dept. Inspection Practices	1	3	2
Fire Fighting Practices	0	3	1
Military Science	2	1	1
	12	25	19

Second Semester			
Elementary Hydraulics	2	3	3
Elementary Physiology	3	0	3
Electricity, Sound, and Light	3	2	4
Materials of Bldg. Construction	2	0	2
Machine Shop Practice	0	3	1
Safety Engineering	0	3	1
Essentials of Public Speaking	2	0	2
Fire Fighting Tactics	1	3	2
Military Science	2	1	1
	15	15	19



The course in Firemanship Training at Oklahoma A. & M. College is in charge of Assistant Professor R. J. Douglas. Professor Douglas, formerly Chief of the Fire Department of Moorefield, West Virginia, is shown (above left) giving a lecture on pump operation. At right, two students are shown at laboratory work. Center, W. Fred Heisler, Director of the School of Technical Training.

THE INSIDE STORY OF Mack LEADERSHIP

Through 28 years of specialization in fire apparatus, Mack has maintained a policy of outright manufacture of every vital part. And, before any Mack apparatus "rolls" out to its first alarm, it has been thoroughly tested and re-tested in Mack's great factories. Some of the many scientific checks are shown here.

Mack's vast resources assure you money-saving stamina, dependability, and top-notch efficiency on the job!

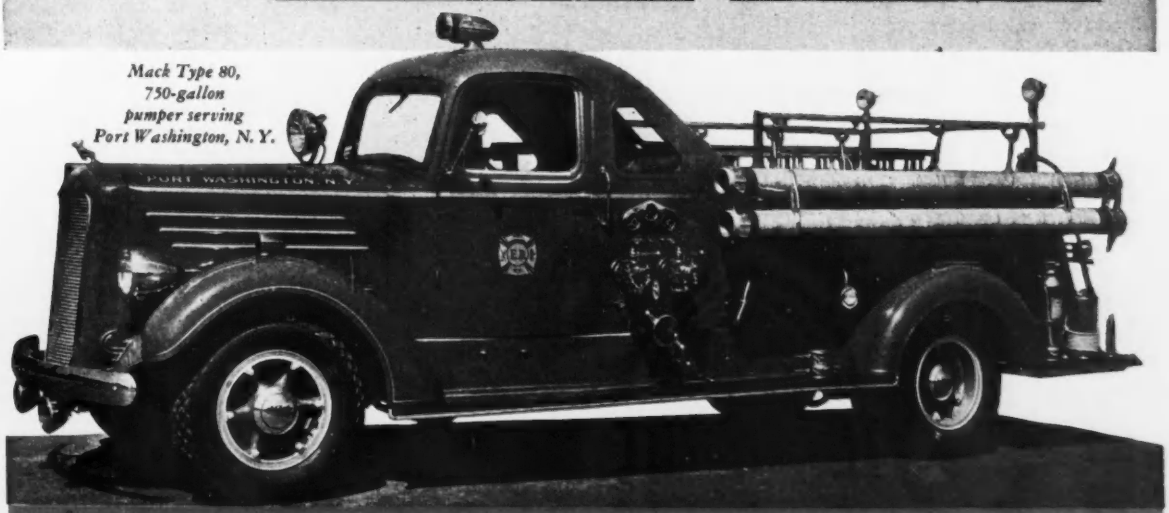
MACK TRUCKS, INC. • FIRE ENGINE DIVISION • NEW YORK, N. Y.

RIGHT, a section of the Mack transmission assembly line — manned by experts trained through years of specialization. After leaving the assembly line each individual transmission must pass rigid tests at all speeds and loads.

ABOVE, pouring of Mack cylinder blocks. Iron mixture and temperatures are rigidly controlled by the Mack laboratory. Here, the final temperature check is being made with the optical pyrometer.

RIGHT, machining the center yoke of composite banjo for Mack rear axle. The huge specially-built machine used here results in an accuracy within 0.002 inch. Precision building pays you dividends in safer, more economical operation.

Mack Type 80, 750-gallon pumper serving Port Washington, N. Y.



MACK has the facilities to build the *finest* in fire apparatus . . . AND DOES!

Battery Charging
AND MAINTENANCE

FIRE engine motors must start when the bell hits or the siren blows. That's why so many fire departments devote extraordinary care to see that batteries are kept fully charged and in first class operating condition.

One arrangement to keep batteries charged is shown in the accompanying drawing. It consists of a charging unit which may be mounted on the fire station wall, or at some other convenient location. This may be connected to the battery on the truck by means of a cable connector.

It's all very simple to use. When the truck is in the station, the cable connector is plugged into a socket on the truck. This socket connects to the battery terminals. The charging unit is constantly hooked up to the battery which assures a full charge at all times. The cable is thrown off by the driver before the truck leaves the station, or it may be arranged so as to pull out as the truck moves away.

The charging unit is operated off the electric lighting system. The unit takes the ordinary 110-115-volt alternating current and converts it to 6-volt direct current required for charging the battery. The charging process is automatic. Under ordinary conditions, the unit produces a "trickle" charge which is all that is needed to keep the charge up in the battery. If the battery is drawn down substantially by use during a run, a relay automatically cuts in a bulb charger which brings the battery up at a relatively higher rate than would be possible with a simple trickle charge. The wiring diagram gives the details of this arrangement.

Charging units larger in capacity than the one described, are available, but the one shown is adequate for most fire apparatus batteries. Where there are several pieces of apparatus in the station, a separate charging unit is desirable for each battery.

Batteries are charged by a direct current and therefore it is extremely important that the leads from the charging unit are connected to the proper terminals of the battery. If by accident the wrong terminals are hooked up the result may be to run the battery down rapidly. To avoid this, the cable connector and the unit and battery plug sockets are "polarized." That is, they are arranged so that the connecting plugs can be inserted in the sockets only in the correct position.

PROVISION of charging facilities, however, is only part of the business of keeping batteries in good operating condition. It must be supplemented by a weekly inspection routine covering the following points:

(1) taking hydrometer reading on the solution in the battery

(2) checking level of the solution, adding distilled water where necessary

(3) checking to see that connections are tight

(4) checking to see that top of battery and connections are clean and dry.

The hydrometer reading will be between 1.270 and 1.285 if the battery is fully charged. About the lowest reading which should be permitted is 1.225. When the battery gets down that low it should be recharged at once.

Hydrometer readings are ordinarily taken by drawing some of the battery solution up into a syringe inside of which the hydrometer may float in the solution. In drawing the solution and returning it to the cell, care should be taken to avoid spilling.

Water should be added where necessary at the time of the weekly inspection so that solution covers the plates and separators, but it is important that the battery not be filled too full. The maximum level of the solution should not be more than ⅜ of an inch above the separators.

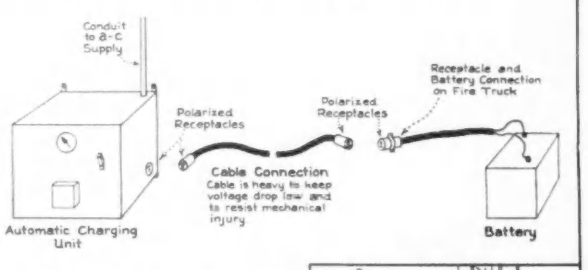
In many cases tap water is unsafe to use in batteries because it contains certain salts and minerals which interfere with the normal chemical action of the battery. Water that is distilled (not merely boiled) should be used unless you have the assurances of an experienced battery man that the local water has been tested and found suitable for batteries.

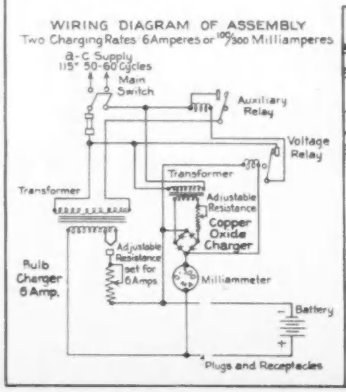
Dirt on a battery may be brushed off with a stiff bristle (not metal) brush. Corroded metal surfaces may be scraped. Wiping with a cloth wet with ammonia or a solution of bicarbonate of soda (one pound of soda to a gallon of water) will neutralize the acid effect of sprayed or spilled solution. After such wiping the battery should be washed off with water. Vent plugs should be in place during the process. After washing, the vent plugs should be examined to make sure the small holes for the escape of gas are clear.

Special attention to the ground wire is often necessary. If the connection to the frame is loose fuses or light bulbs may be blown.

Certain members of the company should have the duty of making the weekly inspections and be otherwise held responsible for the condition of the batteries. Each of these men should get and study carefully the instruction book of the manufacturer of the batteries in use. Not only good service, but long life may be obtained from batteries where attention is given to details of maintenance.

Assembly For Automatically Charging Fire Engine Batteries


Conduit to A-C Supply
Polarized Receptacles
Polarized Receptacles
Receptacle and Battery Connection on Fire Truck
Cable Connection
Cable is heavy to keep voltage drop low and to resist mechanical injury
Automatic Charging Unit
Battery



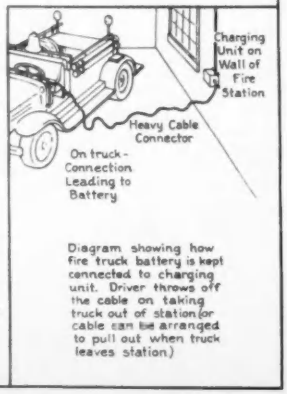


Diagram showing how fire truck battery is kept connected to charging unit. Driver throws off the cable on taking truck out of station (or cable can be arranged to pull out when truck leaves station.)

"The proof of the pudding is the eating" —an adage as true of fire and burglary protection as anything else. The proof of A.D.T. performance is its consistently outstanding record, year after year, in keeping fire and burglary losses to the minimum. Read the figures below—they speak for themselves.

SPRINKLER SUPERVISORY AND WATERFLOW ALARM SERVICE

Supervisory alarms, indicating impairment of sprinkler systems 100,762

Waterflow alarms, indicating fire conditions or serious leaks 2,083

Percentage of fire and water damage losses to insurable values of protected properties . 18/1,000ths of 1%

During the past ten years, subscribers to A.D.T. Sprinkler Supervisory and Waterflow Alarm Service have enjoyed better than 99.97% IMMUNITY FROM FIRE AND WATER LOSSES.

WATCHMAN SUPERVISORY AND MANUAL FIRE ALARM SERVICE

Investigations of failures of watchmen to signal on schedule 179,541

The total number of signals supervised was approximately 300,000,000; hence, the watchman patrol efficiency was 99.93%

Manual Fire Alarms handled 1,025

Percentage of fire losses to insurable values . . . . . 32/1,000ths of 1%

During the past ten years, subscribers to A.D.T. Watchman Supervisory and Manual Fire Alarm Service have enjoyed 99.96% IMMUNITY FROM FIRE AND WATER LOSSES.

BURGLAR AND HOLDUP ALARM SERVICES

Burglars captured as result of A.D.T. alarms 322

Percentage of losses in attacks on A.D.T. protection to insurable values protected . . . . . 1/100ths of 1%

During the past ten years, subscribers to A.D.T. Burglar and Holdup Alarm Services have enjoyed 99.98% IMMUNITY FROM BURGLARY LOSSES.

A.D.T PERFORMANCE 1938

Again, A.D.T. proves its exceptional efficiency in providing protection against fire, burglary and holdup. These Protection Services are available to any type of commercial, industrial or institutional occupancy anywhere in the U.S. Write for further information and descriptive booklets.

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155 SIXTH AVE., NEW YORK, N.Y. • *Central Stations in all principal cities*

A.D.T

Electric Protection Services

AGAINST FIRE · BURGLARY · HOLDUP

A NATION-WIDE ORGANIZATION

INDIAN
"BEST BY TEST"
FIRE PUMPS

RUST PROOF TANK

Nearly half of all fires in the average town or city are roof, stove, small room, spot, brush and grass fires. They can be stopped quickly and efficiently with INDIAN Fire Pumps.

INDIANS use only PLAIN WATER and cause no loss from ruinous acids. AND—water is the most efficient extinguisher for all class A fires, according to the Fire Underwriters.

Save Time and Money
WITH AN
INDIAN

When you use only INDIANS there is no time lost in getting heavier apparatus on the job. INDIANS are always ready to get to work. You can use less men when they're equipped with INDIANS.

You need never worry about lack of water pressure with INDIANS. Out of the way locations are handled the same as any other. Just get WATER from any handy tap, Booster Tank, Stream or Lake.

Many fire departments are replacing the o'd fashioned acid extinguishers with INDIANS, as tests show better results for the average fire with this new and modern fire-fighter.

SEND FOR CATALOG

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Volunteer Firemen

Volume 6 Number 6

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Franklin H. Wentworth Managing Director
Percy Bugbee Assistant Managing Director
Robert S. Moulton Technical Secretary
Horatio Bond Chief Engineer
Warren Y. Kimball Fire Record Department
Strafford Wentworth Associate Editor

June, 1939

HERE is a brief advance report on the 43rd annual meeting of the National Fire Protection Association held last month at Chicago. The five-day program included reports of thirty-seven technical committees and special messages from twenty-five distinguished speakers all of which will be made duly available to members through the published Proceedings. One of the speakers was Roy Mottesheard, Chief of the Fire Department, Dearborn, Mich., and President of the International Association of Fire Chiefs.

Of special interest to volunteers are amended specifications for rural fire apparatus adopted by the meeting. Members present also heard an address on Rural Fire Fighting by Paul O. Johnson, Chief of the Volunteer Fire Department of Oregon, Ill., who spoke on problems of rural fire fighting.

The meeting also accepted the recommendations of the N.F.P.A. Committee on Municipal Fire Apparatus. The idea of changing the pressures at which pumper capacities are to be expressed, which has the support of the apparatus manufacturers, is described in the committee report, but the specified requirements remain as formerly — 100 per cent capacity at 120 pounds per square inch, 50 per cent capacity at 200 pounds, and 33 1/3 per cent capacity at 250 pounds.

LAST month 24 departments with 576 men joined the Volunteer Firemen's Section for the first time. In addition 43 departments with 1,041 men renewed membership. This brings the total enrollment to 657 departments and 14,465 men.

Bloomfield Center Volunteer Fire Company, Bloomfield, Connecticut.

Earlham Fire Department, Earlham, Iowa.

Waverly Fire Department, Waverly, Iowa.

Monson Fire Department, Monson, Maine.

Plymouth Cordage Company, North Plymouth, Massachusetts.

St. Ignace Fire Department, St. Ignace, Michigan.

Anglo - Newfoundland Development Company, Ltd., Grand Falls, Newfoundland.

Menands Fire Company No. 1, Menands, New York.

Nassau County Fire Commission, Mineola, New York.

South Shore Volunteer Fire Departments Association of Long Island, Inc., Roosevelt, New York.

Stanford Fire Company, Stanfordville, New York.

Syosset Fire Department, Syosset, New York.

Hunter Volunteer Fire Department, Hunter, North Dakota.

Utica Volunteer Fire Company, Utica, Ohio.

Haileybury Volunteer Fire Department, Haileybury, Ontario.

Pleasant Valley Volunteer Fire Company, Canonsburg, Pennsylvania.

Millvale Fire Department, Millvale, Pennsylvania.

P. H. Glatfelter Company, Spring Grove, Pennsylvania.

North Cumberland Volunteer Fire Department, Cumberland, R. I.

Sparta Fire Department, Sparta, Tennessee.

Luling Fire Department, Luling, Texas.

Chase City Volunteer Fire Company, Chase City, Virginia.

Mukilteo Fire Department, Mukilteo, Washington.

Twisp Volunteer Fire Department, Twisp, Washington.

A Problem Question
FOR JUNE

Suggested for discussion at company and department meetings this month

91

What is the best known method of fighting incipient fires in aluminum powder?

The answer to the problem question for May will be found on page 8.

N.F.P.A. Membership for Your Company or Department

Membership with unusual advantages is available to fire companies and fire departments through the Volunteer Firemen's Section of the National Fire Protection Association. Here's the simple plan:

Your company or department applies for regular membership in the N.F.P.A. and pays the minimum $10 annual dues. When the application is accepted, the company or department begins to receive at headquarters the monthly bulletins and publications sent regularly to all members of the Association. Also comes a 100-page *Quarterly* Magazine (four times during the membership year), a volume of annual Proceedings (over 400 pages), a Directory of members, and an Index to printed publications. You thus build up a nice fire library. Membership also places at the disposal of the company or department the Information Service of the Association.

Membership Plan Includes VOLUNTEER FIREMEN for Your Company or Department

The publications and services enumerated above are what regular N.F.P.A. members get for their $10 annual dues. The special membership plan of the Volunteer Firemen's Section provides that *in addition* you get VOLUNTEER FIREMEN magazine for the men in your company or department. (The $10 minimum dues allows you to enroll up to 20 men to receive the magazine: 50c per year extra for each man in excess of 20 enrolled.) VOLUNTEER FIREMEN is mailed to each man's home address.

USE THIS COUPON FOR SPECIAL MEMBERSHIP PLAN

If your company or department is now a member, pass this coupon to some other company or department which might like to enjoy the benefits of this plan.

National Fire Protection Association, 60 Batterymarch St., Boston, Mass.:

Please send me a membership application blank. I am interested in your special membership plan for our company or department.

Name .....

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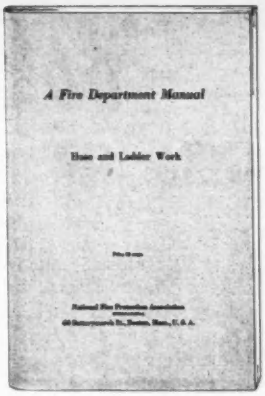
(Chief, Sec'y, Capt., etc.)

Name of Company or Department .....

.....

Address .....



Manual of 64 pages, 6 by 9 inches, 38 illustrations, 50 cents.

HOSE AND LADDER WORK

Here's New Manual You'll Want to Get

A LARGE number of outstanding drillmasters and fire department instructors contributed in the preparation of this new manual being offered by the N.F.P.A. to its fire department members. All of the principal operations involving hose and ladder work at fires are shown in illustrations and described in detail.

Here is a wealth of practical, down-to-earth information. The evolutions have been treated from the point of view of the smaller fire department and the department which operates in a chronically short-handed condition. Shown is how each evolution may be performed without lost time or motion and how men may carry them out without exposing themselves or other members of their company to unnecessary danger.

A valuable part of the manual is an appendix containing suggestions for instructors. An outline is given of a training program to guide such instructors in training work in their own department or in others in which they may be invited to give training work.

Write and get a copy for your personal use. Single copies cost 50 cents each. Address your order to the National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.

There are cases where quantities of the manual may be purchased. For example, an instructor may wish copies for each member of his class, or it may be desired to put a copy in the hands of every member of your company or department. In such cases, where all copies can be mailed to one address, a saving in cost can be made as follows: 6 or more copies, 35 cents each; 25 or more copies, 25 cents each.

The "Model A" Super

Which Every Volunteer Fire Department Should Know About

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Every volunteer Fire Department should know the exclusive qualities of this first-aid extinguisher which experience shows should be the first to be carried into any fire because:—

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It is safe to use on electrical fires. Fyr-Fyter fluid is not only a powerful fire extinguishing fluid, but a most certain insulation—safeguarding the operator against serious injury or possible death from electrical contact.

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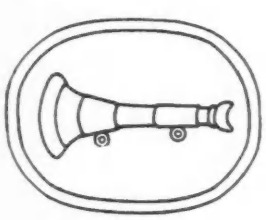
Fire Officers'

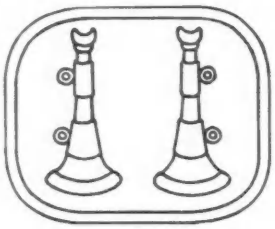
INSIGNIA OF RANK

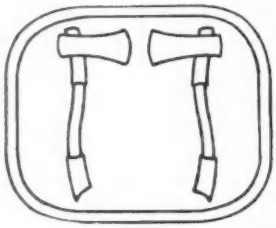
FIRE department insignia in general are based upon a symbolism that goes back to the early days of fire fighting. Officers used to shout their orders through large speaking trumpets, just as some modern fire chiefs are now using large electric amplifiers on the fire grounds. Accordingly in the old days a fire trumpet was a badge of authority just as today a chief is quickly spotted by his white coat and helmet.

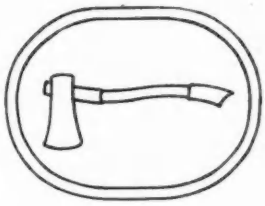
Today, five crossed trumpets in a circle are the generally recognized insignia for the chief of a fire department. Other chief officers have insignia with fewer crossed trumpets according to their standing in the department.

There is one way in which the insignia of a chief of the department differ from those of subordinate assistant, deputy, district or battalion chiefs: The five trumpets of the chief's insignia are equally spaced and point in all directions. The large horns of the trumpets of all subordinate chiefs point toward the bottom of the insignia as worn on the uniform or cap.









In the smaller departments having only a chief and one assistant chief, the subordinate chief usually wears three crossed trumpets. There is nothing to prevent the use of four crossed trumpets to designate such an assistant chief except that three trumpets are more easily recognized at a glance.

The fire service as a whole has never adopted a standardized ranking for the titles of chief officers. In some cities an assistant chief ranks above a deputy chief. In others he has a standing below the deputy. Nevertheless the comparative standing of any chief can be determined by looking at the number of trumpets on his cap badge.

City fire departments often have battalion or district chiefs responsible for a given area of the city. These chiefs usually wear insignia of two crossed trumpets. In the largest cities the districts or battalions are often grouped into divisions under a deputy chief who may be identified by his three crossed trumpets. If there are other chiefs ranking between this division commander and the chief of the entire department such officials usually have four crossed trumpets.

THE officers of engine companies have also traditionally worn trumpets. This custom dates back to the days when the foreman used to shout through a trumpet to set the tempo for the men pushing down on the brakes, as the pump handles were called, just as the coxswain calls strokes for a crew of oarsmen in a boat race. Good teamwork was necessary when thirty or forty men were manning a hand pump, and in the confusion and rivalry that attended early fire fighting operations, the foremen and assistant foremen doubtless made good use of their trumpets.

Today the titles of captain and lieutenant, borrowed from the army, take the place of the old foreman and assistant foremen, but the modern company officers still wear the trumpets as their insignia. The captain wears two trumpets and the lieutenant only one. The captain's trumpets are not crossed and therefore are not confused with those of a district or battalion chief who has two crossed trumpets. Incidentally the district chief's job originally evolved from that of district "engineers" or district wardens usually appointed in each company district, usually a political ward to supervise the fire fighting and the operation of the engines. Whereas the volunteer companies usually elected their own foremen, these ancestors of the present district or batallion chiefs were usually municipal officers. With the "chief engineer" they managed the affairs of the department. In some cities the fire department is still managed by the board of engineers and many fire chiefs are officially called "chief engineer."

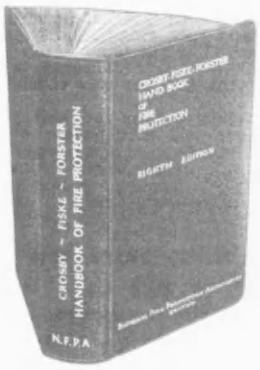
In many departments the officers of ladder companies may be recognized through the substitution of fire axes for trumpets on their insignia.

The trimmings and insignia of chiefs are in gold. Company officers' uniforms are usually trimmed with nickel or chromium to match the trimmings of the uniforms of other members of their companies and to make it easier to distinguish chief officers and company officers. However, in some departments all officers wear gold decorations.

The insignia badges designating the rank of various members are usually worn on the front of the uniform cap and on the coat lapels. These badges should not be confused with the fire department membership badge usually worn on the breast, although sometimes the membership badge for officers may incorporate the insignia of rank.

Crosby - Fiske - Forster

HANDBOOK of FIRE PROTECTION



Eighth Edition

1142 pages; 4¼ x 6½

242 illustrations, 161 tables

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THE HANDBOOK is the standard reference volume for beginners and experienced men specializing in fire prevention and protection. It is not a manual of fire fighting practice.

The HANDBOOK was first published in 1896. Over one hundred well known authorities in the field have helped in the preparation of this new and greatly enlarged edition.

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Some Ideas From Only U. S. Lady Fire Chief

MISS Anne C. Allen of the Cedar Hill Volunteer Fire Department of East Greenwich, Rhode Island, has the distinction of being the only lady fire chief in the United States. Her department was right in the middle of the area struck by the tropical hurricane which lashed New England last fall.

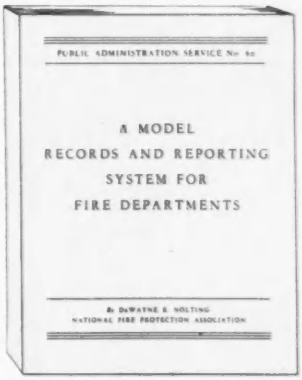
She writes an interesting account of the activities of her department during the hurricane. The department made particularly good use of two portable electric generators. One of these, a 110-volt 600-watt unit, was set up to floodlight the East Greenwich fire station which was being used as rescue and relief headquarters for a large part of the surrounding area. From the fire station about 200 feet of cable was run to the telephone exchange which they also floodlighted. A 32-volt 1,750-watt generator was set up in back of the telephone exchange to charge the emergency storage batteries. This exchange was very important as it was through it that the city of Providence was able to maintain communication with the outside world.

"As a result of our hurricane disaster experience," Miss Allen writes, "I recommend the formation in volunteer fire departments of a courier section to carry messages and information in cases of communication failures. Members of the Rhode Island State Police told me that everywhere they went the afternoon or evening the hurricane struck, the volunteer fire departments had arrived and were at work ahead of them.

"Our experience convinces me that fire departments should be equipped with radios. Two-way radio service for the fire department is desirable and may be a thing of the very near future for modern departments. It costs money, however, which may handicap some volunteer fire departments.

"The volunteer fire department might have at least one piece of apparatus equipped with a tuneable band receiver with a band ranging from 1,500 to 2,600 kilocycles. The need for these receivers was demonstrated when the storm wrecked our communications in Rhode Island. The police and commercial broadcasting radios were silenced, but Amateurs, the Coast Guard, and the telephone companies' emergency stations all were operating within this frequency range and it is amazing the amount of information that was conveyed to me through the short wave receiver which I have installed in my car."

A Model Records and Reporting System for Fire Departments



The record forms contained in this book have met with such acceptance by fire chiefs and fire departments that most of the forms have now been separately printed to meet the demand of departments wishing to purchase supplies of the blanks. Write for a price list for the various record forms. If your department has not yet obtained a copy of the Model Records and Reporting System book ask for a circular describing it so that you will have full information on the many reporting blanks available.

Following is a list of the chapter headings.

I. Use of records and reports.
II. Company records and reports.
III. Officers' reports on fires and alarms.
IV. Inspection records.
V. Building fires classified by occupancy and cause.
VI. Headquarters' records.
VII. Fire alarm office records.
VIII. Consolidated reports.
IX. Annual reports.

Size of book, 8½ x 11 inches

87 pages, 27 forms, 7 figures

Price, $2 each, postpaid

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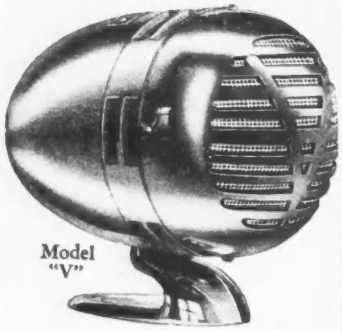

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$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

THERE is a whale of a lot of personal satisfaction in having made a good stop with a hand fire extinguisher. You know that you have killed a bad fire without any fuss or water damage and usually the public is surprised to see the good work a hand extinguisher will do. No persons are in a better position to judge the effectiveness of approved fire extinguishers than the fellows who use them. That is why in the Pyrene Prize Letter Contest firemen win cash prizes for telling of actual cases where extinguishers saved a life or made a good stop. If you know of a fire where good work was done with an extinguisher just tell the facts in your own way. To win one of the prizes does not require any fancy writing ability. The judges want to know what type the extinguisher was (carbon tetrachloride, soda-acid, foam, carbon dioxide, calcium chloride, loaded stream or dry chemical). It is not necessary to tell the make of the extinguisher. The contest is open to members of fire departments including organized industrial fire brigades. The contest is sponsored by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN.

FIRST PRIZE—$10.00

CHARLES LAUX
Fire Department
Maplewood, Missouri

Hot Dog Vendor Saved

One evening in December about three years ago, I was driving on a street very heavy with traffic. A car in front of me stopped at a crossing. When it started again it collided with a pedestrian who was crossing the street. He was a hot dog and hot tamale vendor and was carrying his small alcohol heater on his back. As he fell, the fuel tank burst, spraying him with the liquid. It was immediately ignited and the vendor was enveloped in flames.

I always carry a 1½-quart carbon-tetrachloride extinguisher in my car. I grabbed it, jumped out of my car, and sprayed the contents on the man's burning clothing. So quickly did I put the fire out that only one hand and the side of his face were burned badly enough to require treatment. I feel that the extinguisher saved him from sure death.

SECOND PRIZE—$2.00

HARRY G. FOX
Volunteer Fire Department
Lunenburg, Nova Scotia

Gasoline Fire Extinguished

Last week a fellow worker and I were building a pair of water tanks for one of the fishing schooners sailing out of Lunenburg. We had started to solder the tanks and had them pretty well finished when an accident happened. We were heating the irons on an old type fire pot which burned so badly that we had a blow torch going and the flame playing on the burners at the same time. After a while the heat melted the solder around the pump of the blow torch. The pump unit blew off upsetting the torch and spreading gasoline all over the floor. The gas immediately caught fire and in a few moments the area around the fire pot was enveloped in flames.

My fellow worker ran and got the large soda-acid extinguisher which is always kept on a rack for such emergencies and extinguished the fire. The extinguisher averted serious damage and perhaps loss of life.

THIRD PRIZE—$2.00

W. H. BYRD, JR.
Fire Department
Crisfield, Maryland

Saved Crew and Passengers of Boat

On one of the coldest winter days that has been known in this part of the country I was on a small boat bringing some people to Crisfield from an island in Chesapeake Bay ten miles from the mainland. The bay was frozen over and as we picked our way through the ice we realized that we were far from help should our engine die or other trouble occur. Then, while still two miles from safety we saw the oil filled bilge flare up. Quick action was necessary if we were to save the boat and passengers. A small carbon-tetrachloride fire extinguisher was handy. We directed the stream into the flaming bilge and made short work of the fire. The rest of the trip we made in safety, thankful for the extinguisher that had saved the boat and perhaps our lives.

HONORABLE MENTION

JAMIS A. GRIMSHAW, Secretary, Fire Department, Corpus Christi, Texas.

RALPH A. MCLEAN, Fire Department, Calais, Maine.

ERNEST F. PRUCHA, Volunteer Fire Department, Howells, Nebraska.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 8th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

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To MOUNT ARLINGTON, N.J.

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Fire engine bodies and cabs, in keeping with the most advanced trends in automotive practice, make Ahrens-Fox apparatus beautiful to look at, as well as outstanding in pumping performance, convenient in operation. Quick action arrangement of fire extinguishing appliances is another big feature!

Examine the details of the new de-luxe all-steel cab. Built complete in the Ahrens-Fox plant as an integral part of the Apparatus, it is a real fire engine cab — yet beautiful enough in design, finish and appointments to grace the finest custom-built passenger car.

When you replace obsolete equipment, why not really modernize with Ahrens-Fox? Write us—without obligation—today.

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EVERY TYPE OF PUMP FOR EVERY TYPE OF SERVICE

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Fire Alarm Systems for Volunteer Fire Departments

PUBLIC ALARM
Diaphone Horn
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REDUCE FIRE LOSSES

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Vitaguard fire alarm boxes accessibly and conspicuously located at all points of fire hazard will promote the security of life and property in the community and provide a permanent—and profitable—investment in public safety.

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